CLAIMS

What is claimed is:

1. A method for verifying fiber connectivity between a first node and a second node, the method comprising the steps of:

sending a first message from the first node to the second node, wherein the first message includes an address of an intended port of the second node;

receiving a second message at the first node from the second node in response to the first message, wherein the second message contains an address of a receiving port of the second node; and

comparing the intended port of the second node and the receiving port of the second node for verifying fiber connectivity between the first node and the second node.

2. The method of claim 1, further comprising a step of:

configuring a plurality of ports of the first node and a plurality of ports of the second node based on a fiber connectivity assignment map.

3. The method of claim 1, wherein the messages are exchanged via an optical supervisory channel between the first node and the second node.

4. The method of claim 3, wherein one or more of the first node and the second node further comprises at least one light source for transmitting a light signal via the optical supervisory channel.

5. The method of claim 3, wherein one or more of the first node and the second node further comprises at least one light detecting unit for detecting a light signal via the optical

supervisory channel.

6. The method of claim 3, wherein the optical supervisory channel supports electro-optics functionality at one or more of the first node and the second node.

7. The method of claim 1, further comprising a step of:

activating an alarm when the intended port of the second node is different from the receiving port of the second node, wherein the alarm indicates a misconnection between the first node and the second node.

8. A computer signal embodied in a carrier wave readable by a computing system and encoding a computer program of instructions for executing a computer process performing the method recited in claim 1.

9. A system for verifying connectivity of a plurality of fibers between a first node and a second node, the system comprising:

a sending port of the first node for sending a first message from the first node to the second node, wherein the first message includes an address of an intended port of the second node; and

a receiving port of the first node for receiving a second message at the first node from the second node in response to the first message, wherein the second message contains an address of the receiving port of the second node;

wherein the intended port of the second node and the receiving port of the second node are compared for verifying fiber connectivity between the first node and the second node.

10. The system of claim 9, wherein a plurality of ports of

the first node and a plurality of ports of the second node are configured based on a fiber connectivity assignment map.

11. The system of claim 9, wherein the messages are exchanged via an optical supervisory channel between the first node and the second node.

12. The system of claim 11, wherein one or more of the first node and the second node further comprises at least one light source for transmitting a light signal via the optical supervisory channel.

13. The system of claim 11, wherein one or more of the first node and the second node further comprises at least one light detecting unit for detecting a light signal via the optical supervisory channel.

14. The system of claim 11, wherein the optical supervisory channel supports electro-optics functionality at one or more of the first node and the second node.

15. The system of claim 9, wherein an alarm indicating a misconnection between the first node and the second node is activated when the intended port of the second node is different from the receiving port of the second node.

16. An article of manufacture for verifying connectivity of a plurality of fibers between a first node and a second node, the article of manufacture comprising:

at least one processor readable carrier; and

instructions carried on the at least one carrier;

wherein the instructions are configured to be readable from the at least one carrier by at least one processor and

thereby cause the at least one processor to operate so as to:

send a first message from the first node to the second node, wherein the first message includes an address of an intended port of the second node;

receive a second message at the first node from the second node in response to the first message, wherein the second message contains an address of a receiving port of the second node; and

compare the intended port of the second node and the receiving port of the second node for verifying fiber connectivity between the first node and the second node.

17. The article of manufacture of claim 16, wherein the messages are exchanged via an optical supervisory channel between the first node and the second node.

18. The article of manufacture of claim 17, wherein one or more of the first node and the second node further comprises at least one light source for transmitting a light signal via the optical supervisory channel and at least one light detecting unit for detecting the light signal via the optical supervisory channel.

19. The article of manufacture of claim 17, wherein the optical supervisory channel supports electro-optics functionality at one or more of the first node and the second node.

20. The article of manufacture of claim 16, wherein an alarm indicating a misconnection between the first node and the second node is activated when the intended port of the second node is different from the receiving port of the second node.